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| 09/468,254      | 12/20/1999  | TERRY P. MAHONEY     | 10992003-1          | 3404             |

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FORT COLLINS, CO 80527-2400

EXAMINER

MILLER, MARTIN E

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2623

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/468,254

Applicant(s)

MAHONEY ET AL.

Examiner

Martin Miller

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 12/31/02.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 31 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed December 31, 2002 has been entered into the record and an action on its merits follows.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 and 20 have been considered but are moot in view of the new ground(s) of rejection.

3. The amendment to claim 4 overcomes the 35 USC 112, Second Paragraph rejection of the previous Office Action.

### ***Drawings***

4. The corrected or substitute drawings were received on December 31, 2002. These drawings are acceptable.

### ***Claim Objections***

5. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 23 been renumbered 22.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-5, 9-12, 14, 15, 18, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht, US 5901224, further in view of Yamaguchi et al., (hereinafter Yamaguchi), US 6400392 B1.

As per claim 1, Hecht teaches:

placing a mark on the hardcopy, the mark containing identification information of the electronic document (col. 4, ll. 1-9);

Although Hecht teaches collecting an image that is moved in front of the image capture device (col. 4, ll. 2-5 and viewing a document, col. 5, ll. 33-36, col. 6, ll. 4-15), Hecht does not specifically teach that the image capture device is activated by waving a copy of the hardcopy in front of the image capture device.

However, Yamaguchi does teaches:

viewing the hardcopy by an image capture device ("camera for shooting a document", col. 18, l. 56) to capture an image of the hardcopy document wherein the image capture device is activated by waving ("movement of a hand", which clearly would be holding the document) a copy of the hardcopy (col. 15, ll. 22-25, figure 20) document in front of the image capture device (camera, col. 15, l. 24 and figure 27);

Hecht goes on to teach:

decoding (glyph decoder) the mark from the image captured by the image capture device to determine identification information of the electronic document (col. 6, ll. 16-21); and

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processing the electronic document according to the identification information (col. 6, ll. 27-42).

Since Hecht's "apparatus is intended to work with any device suitable for reprographically replicating a digitized representation of a document" (col. 5, ll. 29-31), it would have been obvious to one of ordinary skill in the art to use the document sensing technology of Yamaguchi's reprographic system (col. 5, l. 64-col. 6, l. 1) in the system of Hecht to alleviate users from using a flat bed scanner and using more efficient and up-to-date scanner technology. Furthermore, Hecht appreciates that flat bed scanners or facsimile devices are not the devices that can be used to collect and reproduce a document image (col. 5, ll. 16-20).

As per claim 3, Hecht teaches:

wherein the step of placing a mark on the hardcopy is performed by creating the mark at the time of creation of the electronic document and wherein the hardcopy, with the mark, is printed from the electronic document (col. 4, ll. 2-5, col. 5, ll. 22-26).

As per claim 4, Hecht teaches:

wherein the step of placing a mark is performed by a printer that prints a digital mark on the hardcopy document. (col. 4, ll. 13-18).

As per claim 5, Hecht teaches:

wherein the step of placing a mark is performed by a copying the hardcopy having a mark to create another hardcopy with the mark(col. 4, ll. 13-18 or col. 6, ll. 34-38).

As per claim 9, Hecht teaches:

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wherein the step of processing the document includes the step of mailing the document by electronic mail (col. 6, ll. 54-56, where the data referred to is the bitmap data stored in document storage).

As per claim 10, Hecht teaches:

wherein the step of processing the document includes the step of the printing the document (col. 4, ll. 8-10).

As per claim 11, Hecht teaches:

wherein the step of processing the document includes the step of making a copy of the electronic document (col. 4, ll. 8-10).

As per claim 12, Hecht teaches:

wherein the mark is machine readable code formed on a substrate on which the hardcopy is printed (col. 4, ll. 8-10, the mark is on the paper).

As per claim 14, Hecht teaches:

wherein the machine readable code is formed on a particular location in the hardcopy document (area suitable, col. 4, l. 5).

As per claim 15, Hecht teaches:

wherein the mark is a digital mark (figure 5).

As per claim 18, Hecht teaches:

wherein the step of processing the electronic document includes identifying and processing based on any intellectual property rights associated with the hardcopy documents (col. 3, ll. 15-18).

As per claim 20, Hecht teaches:

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a data storage device that stores the electronic document (fig. 1, element 30);  
a mark encoder that encodes a mark on the hardcopy (fig. 1, element 54, glyph encoder);  
an image capture device that captures an image of the hardcopy including the mark (fig. 1, document input device, element 20), But Hecht does not specifically teach that the image capture device is activated by waving a copy of the hardcopy in front of the image capture device.

However, Yamaguchi does teaches:

wherein the image capture device ("camera for shooting a document", col. 18, l. 56) is configured to be activated by waving ("movement of a hand", which clearly would be holding the document, col. 15, ll. 22-25, figure 20) the hardcopy in front of the image capture device a copy of the hardcopy (camera, col. 15, l. 24 and figure 27);

Hecht goes on to teach:

a decoder (fig. 1, element 34, glyph decoder), operatively connected to the image capture device, for decoding document identification information from the mark from the image captured by the image capture device; and

a processing unit (fig. 1, element 36, control unit), connected to the decoder and the data storage device, that processes the electronic document in accordance with the decoded document identification information.

Since Hecht's "apparatus is intended to work with any device suitable for reprographically replicating a digitized representation of a document" (col. 5, ll. 29-31), it would have been obvious to one of ordinary skill in the art to use the document sensing technology of Yamaguchi's reprographic system (col. 5, l. 64-col. 6, l. 1) in the system of Hecht to alleviate

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users from using a flat bed scanner and using more efficient and up-to-date scanner technology. Furthermore, Hecht appreciates that flat bed scanners or facsimile devices are not the devices that can be used to collect and reproduce a document image (col. 5, ll. 16-20).

As per claim 21, Hecht teaches:

wherein the processing unit processes the electronic document by one of sending by electronic mail, printing (fig. 1, element 58), or copying (fig. 1, element 58) of the electronic document. Hecht teaches that the digital value of the code can include machine control instructions (col. 1, ll. 60-63).

8. Claims 6-8, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht, further in view of Daniele, US 544479.

As per claim 6, Hecht does not teach barcodes specifically, but Hecht teaches Daniele teaches any unobtrusive two-dimensional mark can be used (col. 3, ll. 10-15). Therefore, Daniele teaches:

wherein the mark is a bar code (abstract). It would have been obvious to one of ordinary skill in the art that a bar code is a two-dimensional mark that can be used to encode a copyright identifier on a document. One would be motivated to combine Hecht with Daniele because both reference the same glyph encoding system but also recognize that other marks are possibly used in either system.

As per claim 7, Daniele teaches:

wherein the mark is a two dimensional bar code (abstract).

As per claim 8, Hecht does not teach the use of a monitor to view the document.

However, Daniele teaches:



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wherein the step of processing the document includes retrieving the document for viewing (Fig. 7, Element 200 shows a system in which the system invention can be embodied including a monitor). Both Hecht and Daniele are directed towards inventions that collect and record copyright royalties for reproduction. It would have been obvious to one of ordinary skill in the art to use a display to present the document to be imaged to the user to allow them to confirm the document is the one desired prior to paying the royalty.

As per claim 16, Hecht does not specifically teach using his system for bulk printing. However, Daniele teaches a device capable of bulk printing:

wherein the step of placing a mark is performed by a printing press that prints the mark during bulk printing (figure 2, document printer). Daniele teaches that reprographic devices include photocopiers and electronic printer, which are obviously capable of printing in bulk (more than one copy, col. 1, ll. 17-25).

As per claim 19, Hecht does not specifically allocating and calculating costs. However, Daniele teaches:

wherein the step of processing the electronic document includes calculating and allocating revenues or costs associated with the hardcopy document (survey results of prior art, figure 1 and "\$" in figure 7). It would have been obvious to one of ordinary skill in the art to use the glyphs of Hecht as the glyphs in Daniele to record, track, and allocate the accrual of copyright royalties.

9. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht.

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As per claim 13, Hecht does not specifically teach font pattern modification, however, Hecht does teach concealing data by making it transparent to the human visual system.

Therefore:

wherein the machine readable code is formed using font pattern modification including one of a half-tone screen , inter-character spacing modification, and dithering patterns.

(OFFICIAL NOTICE- inter-character spacing modification is an age-old, notoriously well-known method of steganographically concealing information.)

It would have been obvious to one of ordinary skill in the art to use inter-character spacing as a method of concealing data particularly when a computer system would be much more effective than the human visual system at determining variations in inter-character spacing.

As per claim 17, Hecht teaches:

wherein the step of processing the electronic document includes invoking a software application (instructions stored in control unit, col. 6, ll. 34-37) to process the electronic document (see also, col. 6, ll. 54-56, which would require invoking a software application).

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht, further in view of Ruppert, US 6253184 B1.

As per claim 22, Hecht teaches that inputs into his data controller (figure 1, element 42) include coin, debit card, and external network access (Figure, 1 elements 46, 48 and 50). Hecht goes on to teach that the data provided by these inputs is used in processing the document (col. 6, ll. 28-34). But Hecht does not teach inputting voice commands. However, Ruppert teaches:

receiving a voice input indicative of an annotation or processing instruction for the document (col. 4, ll. 57-67). Ruppert's copier then performs the operation related to the

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command spoken to the copier. The voice commands of Ruppert are merely substituted for the physical commands of Hecht to perform the same functions

Hecht teaches:

placing a mark on the hardcopy, the mark containing identification information of the electronic document (col. 4, ll. 1-9) the mark containing identification information of the electronic document and the annotation or processing instruction (col. 6, ll. 35-45) for the document received from the voice input;

viewing the hardcopy by an image capture device to capture an image of the hardcopy document (col. 4, ll. 2-5 and viewing a document, col. 5, ll. 33-36, col. 6, ll. 4-15),

Hecht goes on to teach:

decoding (glyph decoder) the mark from the image captured by the image capture device to determine identification information of the electronic document (col. 6, ll. 16-21); and

processing the electronic document according to the identification information and the annotation or processing instruction (col. 6, ll. 27-45).

It would have been obvious to one of ordinary skill in the art to use the voice inputs that control a copier as taught by Ruppert in the copier of Hecht to provide additional information that may be embedded into the document by voice commands given to a copy machine (Ruppert, col. 3, ll. 56-60).

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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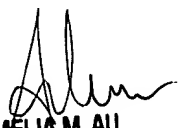
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Miller whose telephone number is (703) 306-9134. The examiner can normally be reached on Monday-Friday, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MEU  
mem  
March 7, 2003

  
AMELIA M. AU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600